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Anne Lise Girboux

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EXAMINER

GRESO, AARON J

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,459	Applicant(s) GIRBOUX ET AL.	
	Examiner AARON GRESO	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/28/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office Action is in response to the Amendment filed 28 September 2009. In the correspondence, Claim 1 was amended to include the limitations of Claim 2 with a cancellation of Claim 2. Claims 3-11 depend directly or indirectly upon Claim 1.

Any rejections and/or objections made in the previous Office Action and not repeated below, are hereby withdrawn.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. Informational footnote references cited again in this action are provided in a previous action.

A response to the Applicants' arguments is presented after an address to the Claims.

Claim Rejections - 35 USC § 103

Claims 1, 3, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Marteaux et al.* (WO 01/58986) in view of *Boden* (US 4331571).

The reference by *Marteaux et al.* indicates the value of silicone emulsion composition types that can be especially useful as a perfume carrier and for hair shampoo (*page 8 Lines 31-34 and page 9 Lines 1-2*).

Marteaux et al. (*Abstract and page 3 Lines 7-8*) teach silicone and water emulsion compositions comprising particle sizes ranging from 0.3 to 1000 micrometers and viscosities of 10 to 1,000,000 Pa-sec.; the size range falls within the ranges for Claims 1 and 3.

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{These dynamic viscosity values would be expected to have, with silicon emulsion densities near 1 g/cm^3 , kinematic viscosities of about 1,000,000,000 cSt as $1 \text{ Pa-s} = 1000 \text{ cp}$ or 1000 cSt . And $1,000,000 \text{ Pa-s} = 1,000,000,000 \text{ cSt}$ or $10,000,000 \text{ Stokes}$. 1 Stoke (St) equals $100 \text{ mm}^2/\text{s}$ and 1 cSt is $1 \text{ mm}^2/\text{s}$; so $1,000,000 \text{ Pa-s} = 1,000,000,000 \text{ mm}^2/\text{s}$. Therefore $1,000,000 \text{ Pa-s}$ indicated in the reference (claim 9 page 16) equates to about $1,000,000,000 \text{ mm}^2/\text{s}$ or 1000 cSt or about $1,000,000,000 \text{ mm}^2/\text{s}$.}

Marteaux et al. further disclose that the polymer used comprises a substantially linear polymer (page 3 paragraph [0010] and page 4 [0011]) and comprises a silicone backbone and can be copolymerized by an alkylene polymer to form a substantially linear polymer that forms blocks containing polysiloxane and blocks of organic material (page 15 Claim 1). This is taken to indicate blocks of material comprising a C chain within the bounds of Si- atoms. The organic material is indicated to comprise alyl terminated polymers that are indicated to react with Si-H groups at siloxane chain ends (page 13 paragraph s [0038]-[0039]). The polymers are indicated to be used in the emulsions (page 16 claims 9-10).

However, *Marteaux et al.* does not further teach the inclusion of a combination of fragrance materials to make an overall fragrance composition of Claim 1, comprising three Composition Items: a) 10% or more (by weight) of a fragrance composition containing one or more perfume ingredients having a BP (boiling point) of 250°C or less {with a ClogP of less than 3.0}, b) at least 15 % of a fragrance composition containing one or more perfume ingredients having a BP of 250°C or less {with a ClogP of 3.0 or

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more}, and c) a fragrance composition containing one or more perfume ingredients having a BP of greater than 250°C {regardless of any ClogP value}.

The teachings by *Boden* (US 4331571; Col 17 Example XIII), on the other hand, provides information to those of ordinary skill in the art for making combinations of fragrances that have BP's and ClogP values of the type in the Applicant's Claim 1 requiring at least 20 percent (%) of first type "a", at least 20 percent of the second type "b", and at least 20 percent of the third type "c".

After introducing a way to enhance the fragrance of perfumes and perfumed articles (*Abstract*), *Boden* (Col 17 Example XIII) teaches a fragrance composition embodying the *Composition Items* requirement of Claim 1. In Example XIII of the reference, *Boden* demonstrates the composition of a perfume that embodies the following fragrances^{*o+}: Citronellol (11.17%)^b, Gerinol (7.45%)^a, Ethyl acetate (0.37%)^a, Terpineol (7.45%)^a, Phenyl ethyl alcohol (6.70%)^a, Amyl cinnamic aldehyde (14.90%)^c, cyclamal (8.94%)^c, Tetrahydro linalool (2.79%)^b, Phenyl ethyl acetate (0.37%)^a, Citronellyl acetate (9.31%)^b, Phenyl acetaldehyde dimethyl acetal (0.74%)^a, Cinnamic alcohol (2.61%)^c, Linalyl acetate (1.86%)^b, Musk ketone (0.74%)^c, Indole (0.74%)^c, and Geranyl nitrile (0.74%)^b. These add up to over 20 percent of *Item a*, over 20 percent for *Item b* and over 20% for *Item c* fragrances that are required to satisfy the percentages indicated in Claims 1-3.

Further, addressing Claims 1 and 3:

It is the examiner's position that particle size and viscosity are result effective variables because changing them will clearly affect the type of product obtained. See

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MPEP § 2144.05 (B). Case law holds that “discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art.” See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In accord with official notice, it has been known that particle sizes of materials in mixtures affect the mixture’s viscosity.

In view of this, it would have been obvious to one of ordinary skill in the art to utilize appropriate experimentation involving particle size formulation associated with viscosity to provide either a desired particle size with a certain viscosity, or a desired viscosity with a certain particle size (or both a desired viscosity that yields a desired particle size), including those within the scope of the present claims, so as to produce desired end results.

Because *Boden* teaches a type of perfume fragrance composition (*Col 17 Example XIII*), and since *Marteaux et al.* teaches that the use of silicone polymer emulsions can be used as perfume carriers and hair shampoo applications (among others)—without indicating any perfume composition restriction, then it would be obvious to use any perfume composition with *Marteaux et al.*’s silicone emulsions, including the types claimed by the Applicants. In addition, it would also have been obvious at the time of the invention to have optimized results effective variables of particle size and viscosity to achieve the desired particle sizes or desired viscosities (or either) of Claims 1 and 3.

It would have been obvious at the time of the invention to use the silicone emulsion teaching of *Marteaux et al.* that can be used with any perfume, perfume carrier composition, or shampoo, and combine them with the perfume formulations suggested

by *Boden's* teaching to make perfumes of a particular type to make silicone emulsions containing *Boden's* fragrance formulations and combined them in a formulation with desired particle sizes and viscosity results effective variables.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Marteaux et al.* (WO 01/58986) in view of *Boden* (US 4331571) as applied to claims 1-3 above, and further in view of *Trinh* (US 5540853).

Marteaux et al. address the use of silicone emulsions for perfume carriers as discussed above for Claims 1-3, 8-9 in view of the fragrance composition by *Boden* (US 4331571, Col 17 Example XIII).

However, the fragrance composition provided by *Boden* (Col 17 Example XIII) does not clearly suggest an increase of 10% percent of the fragrance *Item a* and 10-20 percent more of fragrance *Item c* to be considered to be within the required amounts of 30 and 40-45 percent, respectively, required for composition *Items a* and *c* in Claim 6 as well as lesser increases required for Claims 4-5.

On the other hand, these limitations can be addressed by the teachings by *Trinh* (US 5540853 see discussion below) that show why the fragrance ranges for *Items a, b, and c* can be obviously extended, by at least 20%, to include the ranges of Claim 6 as well as Claims 4-5. *Trinh* has previously taught ranges that would also apply to those percentages of the *Composition Items a, b, and c*, required by the Applicants for Claims 1, 3-5.

Trinh (Col 4 Lines 35-50) teaches that increasing the amount of certain perfume composition fragrances, with adequate boiling points and ClogP values, are effective when used in liquid personal cleaning compositions because they substantially remain even after rinsing and drying. The fragrance compositions are included in carriers and along with surfactants (*Col 61 claim 1*).

Trinh teaches a range of compositions by demonstrating and comparing performances employing mixtures of *Item a, b, and c* compositions in order to provide compositions with fragrances that can endure (remain) past hair cleaning and hair drying (*Col 48 Lines 1-5*) and to compare them with compositions that are suggested as not as useful for doing so (*Col 46 Lines 4-6*). *Trinh's* teaching examples (*Col 46-47 Perfume Compositions A-E*), provide a basis for comparison, identifying terminology categories, and determining range of fragrance materials (from 0-90 percent) that use of ClogP and boiling point values to guide fragrance compositions with longevity or with lesser longevity performances without necessarily requiring extensive experimentation for future investigations for determining fragrance composition ranges for Claim 6 or for those used in Claims 1-5 with other ranges.

Trinh (Col 46-47 Perfume Compositions A-E) reveals 5 Tables, each containing a range of fragrance compositions with at least 2 of the *Composition Items* in mixtures that involve a permutation of ranges that can include those claimed by the Applicants. The compositions are then used in perfumed articles such as shampoos, that are said to "provide excellent in-use hair cleaning, lather, mildness, conditioning and especially long lasting perfume benefit even after the hair is dried with an electric hair dryer" (*Col*

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48 lines 1-5). Perfume A contains 80 percent of *Item c* fragrances mixed with 20% of *Item 2* fragrances. Perfume B contains 90 percent of *Item c* fragrances mixed with 4 percent of *Item a*, and 6 percent of *Item b* fragrances. Perfume C contains 80 percent of *Item a* fragrances mixed with 20 percent of *Item b* fragrances. Perfume D contains 80 percent of *Item c* fragrances mixed with 20 percent of *Item a* fragrances. Perfume E contains 80 percent of *Item b* fragrances mixed with 20 percent of *Item c* fragrances. In this case, the ranges embodied by *Trinh* (Col 46-47 Perfume Compositions A-E) for the fragrance composition percentages producing results (Col 48 lines 1-5) that prima facie agree, as expected, with those of Applicants (Tables 4-8 Pages 8-10). In this comparison, *Trinh* demonstrates the obviousness of the sub-ranges, noted by the Applicants in Claim 6 and for those used in Claims 1-5, which fall within the range Genus practiced by *Trinh* [See MPEP 2144.08 I.] without producing unexpected results.

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention was made to have modified the compositions of *Marteaux et al.*, using the composition by *Boden* as a validation to the teachings of *Trinh* because *Marteaux et al.* provide motivation to use viscous silicone emulsions as carriers for perfumes and for hair care products that are claimed by the Applicant. And because the example of *Boden*'s fragrance composition satisfies the additional requirements of Claim 1's fragrance compositions as well as also serving to verify the teachings of *Trinh* that obviously provide motivation for success when formulating either longer enduring perfumes or, if desired, less enduring fragrances. Therefore, Claims 4-6 are rejected.

Claims 7, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Marteaux et al.* (WO 01/58986) in view of *Boden* (US 4331571) in accord with the teachings above for Claims 1,3-6, 8-9 In further view of *Trinh* (5540853).

Neither *Marteaux et al.* nor *Boden* teach ratios for materials used for shampoos.

On the other hand, *Trinh* also demonstrates uses of a shampoo composition with fragrance compositions, along with silicone materials (comprising silicone gum) (*Colum 48, first table, sub-referencing marker "2" in Col 49 Line 7*) with a 0.5 to 2.5 fragrance to silicone composition weight ratio (or a 1: 5 ratio).

It would have been obvious at the time of the invention to have used the silicone emulsions taught by *Marteaux et al.* that are not restricted from using any fragrance composition, along with the fragrancing compositions of *Boden* in compositional ratios suggested by *Trinh* that comprise silicon emulsions and fragrances. Therefore, Claim 7 is rejected.

As to Claims 10-11:

Trinh also teaches a method of applying a shampoo hair (*Col 29 Lines 35-49*). By doing so, shampoos of this type are stated to provide long lasting perfume benefits to hair even after the hair is dried (*Col 48 lines 3-4*).

It would have been obvious at the time of the invention to have used the silicone emulsions taught by *Marteaux et al.* that are not restricted from using any fragrance composition, along with the fragrancing compositions of *Boden* to use shampoos and shampoo applications suggested by *Trinh*. Therefore, Claims 10-11 are rejected.

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*[It should also be noted that the superscripts a, b, and c, as applied above refer to fragrances that are classified by *Items a, b, and c* as listed above and in the Applicants' Claim 1.]

°[The composition by *Boden* totals to 1337.5 parts by weight. Composition contains other ingredients not presented above. These include: "Geranium bourbon" at 175 parts by weight or (13.08 percent); 7-methyl-3-methylene-6-octenenitrile (0.75%), indole (0.75%) and 1-ethoxy-1-ethanol acetate (1-ethoxyethyl acetate) at (1.87%). The ClogP and Boiling Point (and therefore, class type) of cinnamic alcohol and indole was found in the reference by *Clare et al. (US 7030068)*]

+ [The composition by *Boden* also includes an additional material known as Lyraral® that is a proprietary possession of International Flavors and Fragrances; it is also known as 4-(4-methyl-4-hydroxyamyl) cyclohex-3-ene carboxaldehyde (CAS 31906-04-4) (STN Search Results {search note} referenced per "Lyraral Chemical Abstracts Assessment" (7.45%). The atmospheric boiling point temperature is not published; however, it is reported to be 120 C, at 1 Torr, published by *Teegarden et al. (US 2947780 Col 4 Example 1)*.]

Address of Applicants Arguments:

Applicant argues:

In Regard to Claims 1, 3, 8 and 9 {Claim 2 being canceled with its limitations inserted into amended Claim 1} that A) previous rejections do not address linearity of the polymer emulsion and its properties, and is not taught or suggested in the prior art by *Marteaux* in view of *Boden*; B) the polymer of Claim 1 comprises a polysiloxane polysilakylene copolymer that is not described by the prior art; C) *Boden* does not remedy alleged deficiencies of *Marteaux et al.*

As to Claims 4-7, 10-11: Arguments involve a reapplication of the arguments above towards these claims that depend upon Claim 1.

As to A) and B): *Marteaux et al.* discloses that the polymer used comprises a substantially linear polymer (page 3 paragraph [0010] and page 4 [0011]) and comprises a silicone backbone and can be copolymerized by an alkylene polymer to form a substantially linear polymer that forms blocks containing polysiloxane and blocks of organic material (page 15 Claim 1); the material is copolymerized so that blocks of

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carbon chains alyl groups (a type of vinyl group) are reacted with are silicon-hydrogen atoms. (page 13 paragraphs [0038]-[0039] and claim 1 page 15). The polymers are indicated to be used in emulsions (page 16 claims 9-10).

As to C): *Marteaux et al.* is not deficient; as such, the Arguments towards other references not accommodating alleged deficiencies do not apply.

The rejections stand.

Conclusion

This action is properly final because the claims are rejected on the same grounds as set forth in the previous Office Action mailed on 27 April 2009.

Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). See MPEP § 706.07(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

This action is a final rejection and is intended to close the prosecution of this application. Applicant's reply under 37 CFR 1.113 to this action is limited either to an appeal to the Board of Patent Appeals and Interferences or to an amendment complying with the requirements set forth below.

If applicant should desire to appeal any rejection made by the examiner, a Notice of Appeal must be filed within the period for reply identifying the rejected claim or claims appealed. The Notice of Appeal must be accompanied by the required appeal fee.

If applicant should desire to file an amendment, entry of a proposed amendment after final rejection cannot be made as a matter of right unless it merely cancels claims or complies with a formal requirement made earlier. Amendments touching the merits of the application which otherwise might not be proper may be admitted upon a showing a good and sufficient reasons why they are necessary and why they were not presented earlier.

A reply under 37 CFR 1.113 to a final rejection must include the appeal from, or cancellation of, each rejected claim. The filing of an amendment after final rejection, whether or not it is entered, does not stop the running of the statutory period for reply to the final rejection unless the examiner holds the claims to be in condition for allowance. Accordingly, if a Notice of Appeal has not been filed properly within the period for reply, or any extension of this period obtained under either 37 CFR 1.136(a) or (b), the application will become abandoned.

Examiner Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON GRESO whose telephone number is (571)270-7337. The examiner can normally be reached on M-F 0730-1700.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571 272 1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Milton I. Cano/
Supervisory Patent Examiner, Art Unit 1796

/AJG/